

Notice of Allowability

Application No.

10/780,786

Examiner

Cindy D. Khuu

Applicant(s)

FERGUSON, KEVIN M.

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/10/06.
2. ☒ The allowed claim(s) is/are 1.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/10/06 has been entered.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Mr. Francis Gray during a telephone interview on 01/30/06.

Replace claim 1 as followed: -- A method of frequency response measurement comprising the steps of:

creating a windowed complex sinusoid at a particular frequency, said windowed complex sinusoid being a fundamental sinusoid (sin()) and a 90° degree out-of-phase sinusoid (cos());

correlating an input sinusoidal test signal with the windowed complex sinusoid to produce a complex correlation magnitude signal;

thresholding the complex correlation magnitude signal as a function of a percentage of a maximum value for the complex correlation magnitude signal;

finding a centroid of the thresholded complex correlation magnitude signal; and

determining the frequency response at the particular frequency as a magnitude of the complex correlation magnitude signal at the centroid. --

Pertinent Art Cited

The following US Patent Applications reveal the current state of the art:

Lindemann (6,298,322) teaches a method of frequency response measurement comprising the steps of: creating a tapered window at a particular frequency (Column 7, lines 44-47; Column 8, lines 31-33); synthesizing an input sinusoidal parameter sequence (Column 7, lines 24-25) with the tapered window to produce a magnitude spectrum (Column 11, lines 12-19); and finding a centroid of the magnitude spectrum (Column 13, lines 57-63).

However, Lindemann does not teach at least a method of frequency response measurement comprising the step of: creating a windowed complex sinusoid being a fundamental sinusoid ($\sin()$) and a 90° degree out-of-phase sinusoid ($\cos()$); and thresholding the complex correlation magnitude signal as a function of a percentage of a maximum complex correlation magnitude.

Allowable Subject Matter

Claim 1 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claim 1 is the inclusion of the limitation "creating a windowed complex sinusoid at a particular frequency, said a windowed complex sinusoid being a fundamental sinusoid ($\sin()$) and a 90° degree out-of-phase sinusoid ($\cos()$)". The prior art of record, taken alone or in combination, fails to disclose or render obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMF 01/30/06


John Barlow
Supervisory Patent Examiner
Technology Center 2800